A replacement name for Rana (Paa) rara Dubois & Matsui, 1983 (Amphibia, Anura, Ranidae, Raninae)

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A replacement name is proposed for the frog species Rana (Paa) rara Dubois & Matsui, 1983 from north-western Nepal, as the latter name proves to be a junior primary homonym of Rana danubina rara E. Fraas, 1903, a name given to a fossil frog species from the Miocene of Germany. A lectotype is designated here for the latter taxon.

DUBOIS & MATSUI (1983: 895) described a new frog species from Rara lake in northwestern Nepal under the name *Rana (Paa) rara*. DUBOIS (1992: 320) raised the subgenus *Paa* Dubois, 1976 to the rank of genus, with three subgenera, and recognized this species as *Paa* (*Paa) rara* (Dubois & Matsui, 1983).

This name, however, cannot be conserved for this species, as it is a junior primary homonym in the genus *Rana*, being preoccupied by the name *Rana dambhaa* var. *rara* E. Fraas, 1903. The history of the latter name, however, is a little complicated, and deserves some discussion.

In a paper dealing with the Miocene fossil fauna of Steinheim am Albruch (48*41'N, 10*03'E; Baden-Württemberg, Germany), Oscar FraAs (1870: 291) mentioned once the new name Rana vara, but without providing any information about this species: as rightly remarked by SANCHIZ (1998: 142), this name is therefore a nomen nudum, without nomenclatural status. According to this later author, this name was based on a tibi-folula, still kept in the collection of the Staatliches Museum für Naturkunde of Stuttgart under number SMNS 80207, and which "probably belongs to a small mammal (R, Böttcher, in titl., 1995)".

More than thirty years later, E. FRAAS (1903) described in detail a complete articulated fossil freg skeleton from the Miconen of Steinheim, for which, instead of coining a new name, he used the name *nura* proposed by his father, but as a subspecific name, using the combination *Rama dambina* var. *nura*. Saxerna: (1998; 130) stated that, in this combination, the specific epithet *dambina* was an "unwarranted spelling change" for the specific name *Rama dambiana*, proposed by Micry (1858; 203), but this does not tell us whether this epithet has, or not, a status in nomenclature (see e.g. Dunos), 1987, 2000. Actually, the spelling *dambina* was introduced by MEYER (1860: 142), who used it consistently in his text and figure legend, so that we regard it as an unjustified emendation of *danubiana*, therefore a name having an independent status in nomenclature and its own author and date (i.e., MEYER, 1860).

As for the epithet rara, E. FRAAS (1903: 105-106) borrowed it to his father's work (where it applied to an isolated tibio-fibula), but used it to name the new complete skeleton collected by A. Pharion in 1902, and also applied it with some doubts to a third specimen from Steinheim, a radio-ulna found by C. Joos. He provided (E. FRAAS, 1903: 107-108) a very detailed description of the complete skeleton, with measurements. Earlier in the paper (E. FRAAS, 1903: 105), he had also given a photograph of this fossil that clearly shows a forg. As rightly commented by SANCHIZ (1998: 130), by providing a description, E. FRAAS (1903) gave for the first time a nomenclatural status to the epithet *rara*, as *Rana dambina rara* E. Fraas, 1903.

Because he assumed that only one specimen was involved. SANCHIZ (1998: 130) stated that the "holotype" of this nominal species was the complete articulated skeleton found by A. Pharion in Steinheim, still kept in Stuttgart under number SMNS 11354, and that should be referred to the "Rana (ridibunda) group" (SANCHIZ, 1998; 130), i.e. to the subgenus Rana (Pelophylax) (DUBOIS & OHLER, 1995). However, E. FRAAS (1903) never used the terms "holotype" or "type" for this skeleton, and his use of the name Rana rara proposed by his father suggests that the name Rana danubina rara must be considered based on at least two syntypes, the original isolated tibio-fibula and the new articulated skeleton; whether or not it was also based on the third specimen, the isolated radio-ulna, is more open to discussion, but the inclusion of the original bone (implied by the use of the name rara) suggests that it was also the case for this second isolated bone. Because both isolated bones are of doubtful taxonomic allocation (and possibly not frogs), it is important for the future allocation of the name rara to designate a lectotype among these two (or three) syntypes. To stabilize definitely the status of this name, we hereby designate the articulated skeleton. SMNS 11354, as lectotype of Rana danubina rara E. Fraas, 1903. This name was considered by SANCHIZ (1998: 130) as a junior subjective synonym of Rana danubiana Meyer, 1858, a name based on an incomplete articulated frog skeleton from the Miocene of Günzburg (48°27'N, 10°16'E; Bavern, Germany), that was "presumably destroyed in 1944" (SANCHIZ, 1998; 130), Stabilization of the nomenclatural status of the latter name (considered as a "nomen dubium" by SANCHIZ, 1998) would require the discovery and designation as neotype of another specimen from Günzburg and from the same stratigraphic level as the lost holotype, which is not the case of the lectotype of Rana danubina rara (see SCHLEICH, 1981).

To the best of our knowledge, after E. FRAAS's (1903) paper, his name rara was mentioned only twice in the literature: by KUIN (1938: 16), as Rana dambiana Var, rara, and by SANCHIZ (1998: 130), as a junior subjective synonym of Rana dambiana Meyer, 1858. A neotype designation would stabilize definitively this synonymy. Nevertheless, even if the name Rana dambian rara disappeared definitely from scientific literature as a permanent junior synonym, this would have no bearing on the nomenclatural availability of this name (for more details, see Dupors, 2000), and the epithet rara E. Fraas, 1903 will always remain available and will procecupy the use of the same epithet in the nominal genus Rana.

As a matter of fact, according to Articles 57 and 60 of the Code (ANONYMOUS, 1999), a junior primary homonym "is permanently invalid" and must be replaced. As the name Rana

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(Paa) rara Dubois & Matsui, 1983 is not known to have a synonym, we have to provide a nomen novum (new replacement name) for the Paa species. Therefore we propose the nomen novum Paa (Paa) raraica for the species described by Dubos & MATsui (1983). The adjective rarica means "from Rara", "living in Rara", and refers to the type-locality of the species, Rara lake (Rara Daha; 29°31'N, 82°05'E; 2990 m; Junla Provine; Nepal), which until now remains the only known locality of occurrence of the species.

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LITERATURE CITED

- ANONYMOUS [International Commission on Zoological Nomenclature], 1999. International code of zoological nomenclature. Fourth edition. London, International Trust for zoological Nomenclature; i-xxix + 1-306.
- DUBOIS, A., 1987. Again on the nomenclature of frogs. Alytes, 6 (1-2): 27-55.
- ---- 1992. Notes sur la classification des Ranidae (Amphibiens, Anoures). Bull. Soc. linn. Lyon, 61 (10): 305-352.
- ---- 2000. Synonymies and related lists in zoology: general proposals, with examples in herpetology, Dumerilia, 4 (2): 33-98.
- DUBOIS, A. & MATSUI, M., 1983. A new species of frog (genus Rana, subgenus Paa) from western Nepal (Amphibia: Anura). Copela, 1983: 895-901.
- Dzuots, A. & OHLER, A., 1995. Frogs of the subgenus *Pelophylax* (Amphibia, Anura, genus *Ranai*): a catalogue of available and valid scientific names, with comments on name-bearing types, complete synonymics, proposed common names, and maps showing all type localities. *Zool. Polon.*, (1994), 29 (3-4): 19-204.
- FRAAS, E., 1903. Rana danubina H. v. Meyer var. rara O. Fraas aus der Obermiocän von Steinheim. Jahresheften des Vereins f
 ür vaterl
 ündische Naturkunde in W
 ürttemberg, 59: 105-110.
- FRAAS, O., 1870. Die Fauna von Steinheim. Mit Rücksicht auf die miocänen Säugethier- und Vogelreste des Steinheimer Beckens. Jahreshefte des Vereins für vaterländische Naturkunde in Württenberg, 26: 145-306, pl. 4-13.
- KUHN, O., 1938. Anura. In: O. KUHN, Fossilium catalogus, I. Animalia, Pars 84, Stegocephalia (Labyrinthodontiis exclusis), Urodela, Anura, Nr. 3, Anura, The Hague, Junk: 1-26.
- MEYER, H. V., 1858. [Untitled report.] Neues Jahrbuch Mineralogie Geognosie Geologie Petrefaktenkunde, 1858: 202-207.
- ----- 1860. Frosche aus Tertiär-Gebilden Deutschland's. Palaeontographica, Beiträge zur Naturgeschichte der Vorwelt, 7 (3): 123-182.
- SANCHIZ, B., 1998. Salientia. In: P. WELLNHOFER (ed.), Handbuch der Paläoherpetologie, Teil 4, München, Friedrich Pfeil; i-xii + 1-275.
- SCHLEICH, H. H., 1981. Jungtertiäre Schildkröten Süddeutschlands unter besonderer Berücksichtigung der Fundstelle Sandelzhausen. Cour. Forsch. Senckenberg, 48: 1-372.

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